#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

### WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000086 Address: 333 Burma Road **Date Inspected:** 07-Mar-2007

City: Oakland, CA 94607

OSM Arrival Time: 800 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Huang Wei **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes N/A No

34-0006 **Bridge No: Component:** N/A

### **Summary of Items Observed:**

The CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the welding qualification testing pertinent for the welding qualification record (PQR) HP200710 scheduled for this project. ZPMC welder operator Jiang Xian Hu was observed by the QA Inspector performing welding operations following the preliminary welding procedure specification PWPS-B-T-2231-T-1 for the PQR identified as HP200710. Base metal was designated as A-709-50-2/Z25 (Heat # 06102938N) and appeared to meet the non-fracture critical impact test requirement. The root opening of the joint was approximately 6mm. ZPMC followed the production procedure WPS according with AWS 5.13 for non-standard joints using the automatic flux cored arc welding gas (FCAW-G) process in the flat (1G) position with the 1.4 mm diameter TWE-711 electrode. The QA Inspector verified amperages, voltages, travel speeds, preheat and heat interpass temperatures. The QA inspector was assisted by QA Mike Hasler from passes 15 to 27. The QA inspectors recorded welding parameters for a total of 21 passes (7 thru 14 and 28 thru 37). The QA inspectors observed that the welding parameters taken by Quality Control (QC) inspector Cheng Libin and ZPMC QA inspectors Xu Jun and Hu Gang appeared to be accurate and in accordance with the contract documents. ZPMC QC Inspector Huang Wei witnessed the testing and performed visual weld inspections. The QA Inspector issued a lot number of B71-006-07 after the completion of the PQR. See TL-6032 form for more details and the below digital photograph of the PQR test plate after completion.

# WELDING INSPECTION REPORT

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## **Summary of Conversations:**

The QA inspector did not have any significant conversations on this date.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Acuna, Alfredo	Quality Assurance Inspector
Reviewed By:	McClary,David	QA Reviewer